

## BUILDING REGULATIONS NOTES

### DORMER CONSTRUCTION

To achieve minimum U Value of 0.28W/m<sup>2</sup>K

Tiles hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 M<sub>WS</sub>(g)) and 12mm thick W.F.P external (mild steel straps placed at 900 centres, dormer checks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc Fireline board internally to achieve 1/2 hour fire resistance from both sides).

plaster.

All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer checks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc Fireline board internally to achieve 1/2 hour fire resistance from both sides.

### WARM FLAT DORMER ROOF

(imposed load max 1.0 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)

To achieve U value 0.18 W/m<sup>2</sup>K

12.5mm spa solar reflective chippings to achieve an a designated fire rating for surface spread of flame bedded in bitumen on three layer felt to BS 6229 over 120mm Celotex Crown-up insulation.

Insulation bonded to VCL which is bonded to 22mm exterior grade plywood on fixings to give 1:60 fall on 47 x 170mm C24 timber joists at 400 centres. Ceilings of 12.5mm plasterboard over vapour barrier with skim plaster finish.

Provide restraint to flat roof by fixing of 30 x 5 x 100mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

### STUD ASHLAR/DWARF WALL

To achieve minimum U Value of 0.28W/m<sup>2</sup>K

Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggin) at 400mm centres or to structural engineer's details and calculations. Insulation between and over studs; 60mm Celotex GA4000 between plus 37.5mm Celotex PL4000 insulated plasterboard with VCL.

Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

### UPGRADE OF SOLID EXTERNAL WALL

To achieve min U-value 0.30W/m<sup>2</sup>K

Existing wall to be exposed and checked for its suitability. Upgrade existing solid block wall by providing 62.5mm Kingspan Kofotherm insulated plasterboard internally.

Provide 25mm x 50mm battens at 600mm centres to give a nominal 25mm cavity between the masonry and insulation. Fix a vapour control layer under the insulation. All work in accordance with BS 8212 (Code of practice for dry lining).

### UPGRADING SOLID PARTY WALL (cold adjoining space)

The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Insulate wall on the warm side using 77.5mm Celotex PL4000 insulated plasterboard.

Plasterboard to be bonded, using dot and dab method, to the existing construction with proprietary adhesive at 300mm centres vertically/horizontally and in accordance with manufacturers instructions. Tape joints and seal perimeter edges with mastic, to provide a vapour control layer (VCL). All work in accordance with BS 8212 (Code of practice for dry lining).

### UPGRADE OF PITCHED ROOF

(imposed load max 0.75 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)

Vented roof - pitch 22-45°

To achieve U-value 0.18 W/m<sup>2</sup>K

Roof construction - 47 x 200mm Grade C24 rafters at max 400mm centres. Insulation to be 100mm Celotex GA4000 between rafters between and 52mm Celotex PL4000 insulated plasterboard under rafters.

Maintain a 50mm air gap above insulation to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents in accordance with manufacturers details. Finish with 5mm skim coat of finishing plaster to the underside of all ceilings.

### UPGRADE OF EXISTING FLOORS

Ensure first floor achieves modified half-hour fire resistance.

New second floor 200 x 47mm grade C24 joists to be 50mm minimum from chimney breasts, rooms and bathrooms flooring to be moisture resistant grade in accordance with BS EN 312.

Identification marking must be laid upper most to allow easy identification. To upgrade to half hour fire resistance and provide adequate sound insulation lay minimum 150mm Rockwool insulating material or equivalent or chicken wire between joists and extended to eaves.

Chicken wire to be fixed to the joists with nails or staples these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208 1988. Joists spans over 2.5m to be strutted at mid span use 38mm solid or 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x 3/4 depth solid noggin between joists at strap positions

### INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggin at 1/3 height or 45mm cts.

Provide min 10kg/m<sup>3</sup> density acoustic soundproof quilt tightly packed (eg 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud.

Partitions built off doubled up joists where partitions run parallel or provide noggin where at right angles. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

### NEW STAIRCASE

Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS5585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least; the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Min 2.0m headroom measured vertically above pitch line of stairs and landings. However, if there is not enough space to achieve this height the headroom will be satisfactory if the height measured at the centre of the stair width is 1.9 m reducing to 1.8m at one side of the stair. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be undimmable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

### ROOF LIGHTS

Min U-value of 1.6 W/m<sup>2</sup>K. Roof lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturers instructions with rafters doubled up to sides and suitable flashings etc.

### SAFETY GLAZING

All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current building regulations. i.e. within 150mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

### INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations.

### HEATING

Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS Safe registered specialist. All work to be in accordance with the Local Water Authorities by laws, Gas safety requirements and IEEE regulations.

### MEANS OF ESCAPE - Fire doors

Form a protected escape stairway by providing half hour fire resistance to all partitions as well as floors and ceilings above and below rooms. Stairway to be protected at all levels - from the loft (om/rooms then leading directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD20 rated fire doors to BS 476-22:1987 or the European equivalent BS EN 1654 (fitted with intumescent strips rebated around sides and top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level or stair pitch line.

### RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken and connected into 68mm dia upvc downpipes.

### VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within rooms at a rate of min 5000mm<sup>2</sup>; and to kitchens, bathrooms, WCs and utility rooms at a rate of 4000mm<sup>2</sup>.

### PURGE VENTILATION

New windows/rooflights to have operable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°

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Internal doors should be provided with a 10mm gap below the door to aid air circulation.

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Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

### BACKGROUNDS AND PURGE VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm<sup>2</sup>; and to kitchens, bathrooms, WCs and utility rooms at a rate of 4000mm<sup>2</sup>.

Purge ventilation - New windows/rooflights to have operable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°

Internal doors should be provided with a 10mm gap below the door to aid air circulation.

Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

### PROPERTY ADDRESS

100mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggin at 1/3 height or 45mm cts.

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### PROPERTY ADDRESS

232 WEST END ROAD

RUISLIP, HA4 6DX

### PROJECT:

CONVERSION OF EXISTING LOFT SPACE

### IN TO HABITABLE ROOM

### Dwg Ref: 003

### Client: LONDON BOROUGH OF HILLINGDON

### REV: 1

### Dwg Title: PROPOSED SECOND FLOOR

### Date: 20-07-2021

### Property Address:

### Project:

### Conversion of Existing Loft Space

### In to Habitable Room

### Dwg Ref: 003

### Client: London Borough of Hillingdon

### Rev: 1

### Scale Bar: 1:50 (A3)

